within 30 days after the PCI procedure, and 114 (74%) events occurred in the setting of STEMI. Out of all the deaths, pre-procedural cardiogenic shock, cardiac arrest, CHF, and sustained ventricular tachycardia, were present in 48%, 31%, 29%, and 7% patients, respectively. Overall, only 42 (27%) patients died from PCI-related events, and the majority of these were related to definite (5%) or presumed (15%) subacute stent thrombosis. The most common cause of mortality was non-PCI-related cardiac death (73 patients, 47%), with post-STEMI cardiogenic shock (36%) being the most common etiology. Forty-four patients (28%) died from non-cardiac-related causes, and anoxic encephalopathy (16%) after cardiac arrest complicating STEMI was the most common cause in this category.
Conclusions: The majority of the deaths after PCI in a regional cardiac centre were related to the patients' presenting illnesses and comorbidities, rather than PCI-related causes, which would be a better marker of PCI quality.

TCT-42

Real world comparison of MGuard stent versus bare metal stent for ST elevation myocardial infarction

Agustín Fernandez-Cisnal[1], Belen Cid[2], Belen Alvarez-Alvarez[3], José María Cubero Gómez[4], Raymundo Ocaranza-Sanchez[3], Diego Lopez-Otero[3], Pablo Souto-Castro[3], Luis Díaz de la Llera[4], Ramiro Trillo[5], Jose Ramon Gonzalez-Juanatey[3]
[1]Hospital Universitario Virgen Macarena, Seville, Spain, [2]Hospital Universitario de Santiago de Compostela, Santiago de Compostela, Spain, [3]Complejo Universitario Hospitalario Santiago de Compostela, Santiago de Compostela, Spain, [4]Hospital Virgen del Rocio, Seville, Spain, [5]Hospital Clinico Universitario de Santiago de Compostela, Santiago de Compostela, Spain

Background: The MGuard Stent (MGS) was designed to prevent distal embolisation of thrombus and has been shown to improve microcirculation in ST-elevation myocardial infarction (STEMI). However, there are no real world data comparing it with the bare metal stent (BMS). The aim of this study is to determine the efficacy and safety of the MGS in STEMI in the real world compared to the BMS.
Methods: All STEMI patients undergoing primary angioplasty between July 2011 and January 2013 were included in the study except patients with cardiogenic shock (Killip IV) or those in which the DES was implanted. In total, 262 patients were included from a single centre, of which 35.9% had an MGS implanted. Two groups of 79 patients were established after propensity score matching (PSM), and they were similar in terms of baseline and periprocedural variables.
Results: The mean follow-up was 321 ± 12.94 days. There was no difference in mortality (7.6% in both groups), major adverse cardiac events (MACE) (20.3% vs. 12.7%, P = 0.198), non-cardiac mortality or non-fatal myocardial infarction (6.3% in both groups). Target lesion revascularisation (TLR) was significantly higher in the MGS group (11.4% (9) vs. 1.3% (1) P < 0.01; RR 10.02 [1.23 to 81.16]) (Table 1).

Table 4

	Unmatched			Matched		
	MGS (n = 92)	BMS (n = 170)	P	MGS (n = 79)	BMS (n = 79)	P
MACE	18.5% (17)	14.1 (24)	0.512	20.3% (16)	12.7% (10)	0.198
All-cause mortality	6.5% (6)	8.8% (15)	0.354	7.6% (6)	7.6% (6)	1
Cardiovascular mortality and non-fatal MI	7.6% (7)	7.1 (12)	0.870	6.3% (5)	6.3% (5)	1
Reinfarction	4.3% (4)	2.4% (4)	0.370	5.1% (4)	2.5% (2)	0.405
Heart failure	3.2% (3)	1.7% (3)	0.290	3.8% (3)	1.3% (1)	0.305
TLR	9.8%(9)	2.9% (5)	0.019	11.4% (9)	1.3% (1)	0.009
TVR	9.8%(9)	2.9% (5)	0.019	11.4% (9)	1.3% (1)	0.009
Stent thrombosis	2.2% (2)	0.6% (1)	0.250	2.4% (2)	1.3% (1)	0.560
Acute	1.1% (1)	0.0% (0)		1.3% (1)	0.0% (0)	
Subacute	1.1% (1)	0.6% (1)		1.3% (1)	1.3% (1)	
Peak troponin I (ng/dL)	90.16 ± 82.11	115.53 ± 128.88	0.444	91.32 ± 86.08	95.75 ± 105.20	0.683

Conclusions: Our study is the first to compare the MGS with the BMS in STEMI in the real world, and it also appears to confirm that although the MGS is a safe device in STEMI that is not associated with increased mortality, it is associated with a higher long-term TLR rate.

TCT-43

Direct Culprit Vessel Primary PCI to LAD Followed by Contra Lateral Angiography by Transradial Route in Acute Myocardial Infarction - Direct Study

T. Ghose[1], Kuldeep Arora[1], S. Yadav[1]
[1]Paras Hospitals, Gurgaon, New Delhi, India

Background: Percutaneous coronary intervention (PCI) of the infarct related artery(IRA) during primary PCI for ST elevation myocardial infarction (STEMI) is appropriate. Two retrospective analyses suggested that, direct PCI to the IRA without knowledge of the anatomy of the contra lateral artery is feasible .This approach would shorten the door to balloon time which is a validated surrogate for mortality in AMI. We have reported the feasibility of such an approach during transradial primary PCI in a pilot study (Direct prospective study). In the present clinical study we tested the hypothesis that in anterior STEMI, direct PCI to left anterior descending (LAD) artery before right coronary artery angiography is feasible and this would shorten the door to balloon (d2b) time, even in the hands of operators who have shifted from femoral to radial approach.
Methods: Anterior wall STEMI was diagnosed by standard criteria. All consecutive patients of anterior MI admitted between March 2012 to April 2014 were studied prospectively. Patients with cardiogenic shock were excluded. Patients were pre-treated with chewable aspirin 150 to 325 mg , ticagrelor 180 mg and atorvastatin 80 mg and shifted to cath lab . Radial access was obtained by anterior wall puncture of the right radial artery. LMCA was hooked with 6F XB guiding catheter and primary PCI to LAD was done as per standard protocol. After successful PCI to LAD, the RCA angiogram was performedwith a 5 F TF catheter . All the intervals were recorded.
Results: 41 patients of anterior MI were treated. 30 drug eluting stents and 12 bio-resorbable vascular scaffolds were deployed. The median d2b time was 35+11.8 minutes and the mean d2b time was 36.46+ 14.3min. In two cases SL (2) and (8), the RCA angiogram required multiple attempts with different catheters. Prior RCA angiogram would have prolonged the median d2b time by 2.45 minutes (p=0.05 sec) and mean d2b time by 4.76 minutes (p=< 0.05 sec).
Conclusions: From this multicenter study, we conclude that in anterior wall STEMI, it is feasible to perform PCI to LAD directly without knowing the RCA anatomy which significantly shortens the d2b time. Randomized controlled trial is warranted.

TCT-44

Comparison Of in Hospital Clinical Outcomes In Patients with ST Elevation MI Transferred for Primary PCI from Non-PCI facility With Those Presenting Directly to PCI facility

Shishir Mathur[1], DEVI N. MATHUR[2], Alan Ahlberg[2], Francis Kiernan[2]
[1]Hartford Hospital, University of Connecticut, Hartford, CT, [2]Hartford Hospital, Hartford, CT

Background: Patients with ST elevation myocardial infarction (STEMI) who are transferred for primary PCI from a non-PCI facility have longer reperfusion times which may be associated with poorer clinical outcomes. The aim of this study was to compare in hospital clinical outcomes among patients presenting directly to a PCI facility (Non Transfer STEMI group) with those transferred from non-PCI facility for primary PCI (Transfer STEMI group).
Methods: A retrospective analysis of patients undergoing primary PCI for acute STEMI from July 2009 to Dec 2013 at a tertiary care PCI hospital was performed. Patients were identified as Non Transfer STEMI (n=501) and Transfer STEMI (n=507). Demographic characteristics, risk factors and in hospital clinical outcomes were compared between the two groups.
Results: The basic demographic profiles and cardiovascular risk factors were very similar between the two groups. The percentage of patients who presented with cardiogenic shock and/or cardiac arrest in both groups was similar (12.8% vs 14.4% respectively, p=0.45). The goal door to balloon time (DTB) was achieved in 85% of patients in Non-Transfer STEMI (< 90 min) group and 33% of patients in Transfer STEMI group (< 120 min). 38% of patients in the transfer STEMI group had DTB time between 120 to 180 minutes. Occurrence of Post PCI cardiogenic shock, CHF and stroke was similar between the 2 groups. The all cause in hospital mortality was similar in Non Transfer STEMI vs Transfer STEMI group (5.2% vs 5.3%, p=0.9)